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EXAMINER

ZEMAN, ROBERT A

ART UNIT PAPER NUMBER

1645

DATE MAILED: 09/23/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/759,345

Applicant(s)

ROBINSON, DOUGLAS H.

Examiner

Robert A Zeman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 June 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5. 6) ☐ Other: \_\_\_\_\_

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### **DETAILED ACTION**

The amendment and response filed on 6-24-2002 is acknowledged. Claims 11, 12, 19, 24 and 25 have been amended. Claims 26 –29 have been added. Claims 1-29 are pending and currently under examination.

### ***Information Disclosure Statement***

The information disclosure statement (Paper No.5) filed on 6-24-2002 is acknowledged. An initialed copy of said document is attached hereto.

### ***Claim Rejections Withdrawn***

The rejection of claims 1 and 15 under 35 U.S.C. 112, second paragraph, as being rendered vague and indefinite by use of the language “producing” is withdrawn. Applicant’s arguments have been fully considered and deemed persuasive.

The rejection of claims 11-12 and 19 under 35 U.S.C. 112, second paragraph, as having insufficient antecedent basis for the limitation "L-cell virus" is withdrawn in light of the amendment thereto.

The rejection of claims 2 and 15 under 35 U.S.C. 112, second paragraph, as being vague and indefinite in the use of the language “microaerophilic conditions” is withdrawn in light of Applicant’s argument.

The rejection of claims 1-24 under 35 U.S.C. 112, second paragraph, as being incomplete in the absence of a recovery step for the microorganisms obtained is withdrawn in light of Applicant’s argument.

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The rejection of claims 24 and 25 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over either Bujard et al. (U.S. Patent No. 4,868,111) or Sloma et al. (U.S. Patent No. 4,695,543) is withdrawn in light of the amendment thereto.

### ***Claim Rejections Maintained***

#### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-29 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-14 of U.S. Patent No. 6,022,730 for the reasons outlined in the rejection of claims 1-25 in the previous Office action. Although the conflicting claims are not identical, they are not patentably distinct from each other because both sets of

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claims are drawn to methods of producing (isolating) bacteria from retrovirally transformed human endothelial cells.

***35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title.

Claims 1-29 are rejected under 35 U.S.C. 101 because the claimed invention is not supported by either a credible asserted utility or a well established utility, as the disclosed invention is inoperative as was outlined in the rejection of claims 1-25 in the previous Office action.

**Applicant argues:**

1. The instant claims does not claim for the “spontaneous generation” of bacteria but refer to methods of making (producing) bacteria out of virally infected cells.
2. ***De Novo speciation*** does not mean creation of life but refers to the evolution of a distinguishable new species.
3. The Declarations by Drs. Robinson and Steuer each lend support to the enabling quality of the disclosure.
4. The results of the work outlined in the “Final Report” demonstrate that none of the starting materials used were contaminated.
5. The results of the work outlined in the “Final Report” that the isolated microorganisms had the morphological characteristics of bacteria.

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6. The Declaration by Dr. Steuer states that the production of bacteria was not due to contamination.

Applicant's arguments have been fully considered and deemed non-persuasive.

The instant claims are drawn to a method for **producing** a bacterium that contains a eukaryotic and/or viral gene, which comprises culturing virally infected eukaryotic cells under low oxygen conditions to produce a bacterium containing a eukaryotic and/or viral gene. The specification at page 9 indicates that the present invention provides a process for producing a bacteria containing at least one eukaryotic gene. The specification at page 9 further states "the process of the present invention, sometimes called *de novo* speciation, can be divided into the following stages:

(I) Culturing virally-infected eukaryotic cells under low oxygen conditions to produce a bacterium containing a eukaryotic and/or viral gene; and

(II) Selecting and replicating at least one such bacterium."

With regard to Applicant's assertion that the instant claims are not drawn methods of spontaneously generating bacteria but refer recite methods of making (producing) bacteria out of virally infected cells, Applicant is reminded that "producing", "making" and "generating" are all synonyms. Accordingly, the claims and the specification call for a method for **producing/generating** a bacterium containing a eukaryotic and/or viral gene, which comprises culturing virally-infected eukaryotic cells under low oxygen conditions to **produce/generate** a bacterium containing a eukaryotic and/or viral gene whereby neither the bacterium nor the bacterial genome is introduced. In addition, Barron's Law Dictionary 3rd Edition defines "*de*

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*novo*” as “new, young, fresh; renewed, revived...” and Webster’s II New Riverside Dictionary defines “speciation” as “the evolutionary process by which new species are formed.” Therefore, contrary to his assertion, Applicant is calling for the *de novo* “creation” of a new species and/or the “creation of a life form”, i.e., the bacterium, from eukaryotes without the introduction of bacterial genes or the bacteria themselves.

With regard to Applicants assertion that ***De Novo speciation*** does not mean creation of life but refers to the evolution of a distinguishable new species: Applicant has failed to identify what “species” was transmuted into a “distinguishable new species”. The specification has demonstrated that *Bacillus licheniformis* could be isolated from a culture of RT-HCMV endothelial cells but is silent on evolutionary etiology of said bacteria.

With regard to Applicant’s assertion that the Declarations of Drs. Robinson and Steuer lend support to the enabling quality of the disclosure, said Declarations are not commensurate in scope with the instant claims. Said declarations provide support for a method of isolating *Bacillus licheniformis* from RT-HCMV endothelial cells, nothing more.

With regard to Applicant’s argument that the “Final Report” cited by Drs. Steuer and Robinson demonstrate that none of the starting materials used were contaminated and that the production of bacteria was not due to contamination, said report states “the possibility of environmental contamination cannot be eliminated” (see the conclusion on page 1).

### ***35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to

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enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The requirement to meet the meet all of the requirements of the criteria set forth in 37 CFR 1.801-1.809 is maintained. Applicant or Applicant's representative may provide assurance of compliance with the requirements or 35 U.S.C. § 112, first paragraph. If the deposit was made under the provisions of the Budapest Treaty, filing of an affidavit or declaration by applicants or assignees, or a statement by an attorney of record over his or her signature and registration number, stating that the deposit has been accepted by an International Depository Authority under the provisions of the Budapest Treaty, that all restrictions upon public access to the deposit will be irrevocably removed upon the grant of a patent on this application and that the deposit will be replaced if viable samples cannot be dispensed by the depository, is required. This requirement is necessary when a deposit is made under provisions of the Budapest Treaty as the Treaty leaves these specific matters to the discretion of each State. Amendment of the specification to recite the date of the deposit and the complete name and address of the depository, amendment of the claims to refer to the accession number, is required, in addition, claims reciting the deposited material must be amended to include the depository accession number of the deposited material.

Furthermore, unless the deposit was made at or before the time of filing, a declaration filed under 37 C.F.R. 1.132 is necessary to construct a chain of custody. The declaration, executed by a person in a position to know, should identify the deposited the bacteria by the depository accession number, establish that the bacteria is the same as that described in the



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specification, and establish that the deposited bacteria were in applicants' possession at the time of filing.

Claims 1-29 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a method for **isolating** a bacterium comprising aseptically culturing retrovirally transformed human capillary microvascular endothelial cells (ATCC CRL 11655); subjecting said culture to an anaerobic culturing phase wherein said culture is exposed to oxygen conditions corresponding to an atmosphere containing of about 0 to 2% v/v oxygen for a period of between 18 and 24 hours; exposing said culture to oxygen conditions corresponding to an atmosphere containing greater than 2% v/v oxygen; subjecting said culture to an additional anaerobic culturing phase wherein said culture is exposed to oxygen conditions corresponding to an atmosphere containing of about 0 to 2% v/v oxygen for a period of between 18 and 24 hours; subjecting said culture to an additional aerobic culturing phase under aseptic culturing conditions and corresponding to an atmosphere containing greater than about 2% v/v oxygen; isolating a bacterium from the culture (either *Staphylococcus aureus* ATCC 55589, *Staphylococcus capitis* ATCC 55590, *Staphylococcus hemolyticus* ATCC 55592, *Staphylococcus epidermidis* ATCC 55591 or *Micrococcus luteus* ATCC 55588), does not reasonably provide enablement for methods for **producing** a bacterium that contains a eukaryotic and/or viral gene comprising culturing virally-infected eukaryotic cells under low oxygen conditions as outlined in the rejection of claims 1-25 in the previous Office action. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

**Applicant argues:**

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1. The specification discloses the production of a variety of bacteria from six different eukaryotic cell lines.
2. The enablement requirement is met if the description enables any mode of making and using the claimed invention.
3. The specification needs only to teach a person of ordinary skill in the art how to produce “a bacterium”.
4. The Robinson and Steuer Declarations confirm and conclusively establish that the methods disclosed in the specification enable the production of a number of different kinds of bacteria.
5. The Office has fundamentally misconstrued the nature of the invention.
6. The specification clearly states that the methods result in the acquisition by eukaryotic cells all of the morphological characteristics of prokaryotes and that the production of bacteria is not due to the presence of bacteria in the eukaryotic cell cultures.
7. Dr. Steuer states that persons skilled in the art do not apply the position taken by the Office.
8. The Declarations by Robinson and Steuer demonstrate that the claimed methods are completely repeatable.
9. The issues raised by the Office with regard to the viral and/or eukaryotic genes are not material to the claims since one of skill in the art would know that any gene present in the bacteria would be intact, stable and integrated in the genome because that would be their condition prior to the performance of the claimed methods.

Applicant's arguments have been fully considered and deemed non-persuasive.

Contrary to Applicant's assertion the specification is not enabled for methods for **making, producing or generating** a bacterium that contains a eukaryotic and/or viral gene. As

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stated previously, the specification is only enabled for a method for **isolating** a bacterium comprising aseptically culturing retrovirally transformed human capillary microvascular endothelial cells (ATCC CRL 11655). The specification does not provide any mode of making and using the claimed invention throughout the scope of the claims. Contrary to the Applicant's assertion, the Declarations by Drs. Robinson (i.e. the Final Report) and Steuer do not establish that the methods disclosed in the instant application are enabled. In fact, Dr Steuer states (see page 1 of the final report) "reintroduction of an aerobic atmosphere during an anaerobic cell culture phase resulted in the **isolation** of bacteria, specifically *Bacillus licheniformis*". Additionally, the results presented by Dr Steuer were obtained using a single cell strain (RT-HMCV) and resulting in the **isolation** of a single bacterial strain.

Applicant states that the Office has fundamentally misconstrued the claimed invention. The claimed invention, as recited in the claims, is drawn to a method of **producing** a bacterium that contains a eukaryotic and/or viral gene wherein said method comprises culturing virally-infected eukaryotic cells under low oxygen conditions. Said method further comprises exposing said cells at least once to anaerobic or microaerophilic culture conditions.

As stated before it does not appear that the claimed method would be suitable for the recovery of any and all bacteria regardless of if they were "produced" or merely the result of a contamination. From the record of the written disclosure specific bacteria were obtained by the cultivation of the specific cell lines in specific media. In view of the specific nutritional requirements of different types of "cell cultures" and of different bacteria, there is no reasonable expectation that any and all types of bacteria may be "produced" or even isolated from any and all cell cultures by the procedure claimed. For example, any anaerobic bacteria would be

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destroyed upon exposure to aerobic conditions. In addition, the claims lack specific method steps for the recovery of the bacteria. Thus, it is unclear that the claimed method would be suitable for the recovery of any and all bacteria, a few of which may be present, but not detectable by certain means.

Applicant relies on the aforementioned Declarations as being demonstrative of the predictability and repeatability of the claimed methods. However, Dr. Steuer was only able to **isolate** a known bacterial species (*Bacillus licheniformis*) in half of his experiments. He did not report the any cases of “de novo speciation”. Therefore contrary to Applicant’s assertion, it is apparent that the claimed method is unpredictable and would appear to depend on the type of cell cultured and the type of virus employed. The specification is silent on the criteria employed in determining what cell culture to use in order to have a reasonable a degree of certainty that bacteria as required can be “produced”, in the absence of positive steps to modify existing bacteria and to assure the survival of the cell culture for a time period. Accordingly, in view of the lack of guidance, the claims as written constitute nothing more than an invitation to experiment.

The present invention would also require undue experimentation to practice in view of the unpredictable completion of the culturing steps. The specification indicates that the cultured cells under anaerobic conditions results in the death of the eukaryotic cells. However, the claims include no such limitation, accordingly, it is unclear if the eukaryotic cells are to be living or dead at this point. Likewise, the specification indicates that culturing under low oxygen conditions results in the production of the bacterium.

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Contrary to Applicant's assertion, the issues raised by the Office with regard to the viral and/or eukaryotic genes **are** material to the claims since one of skill in the art would **not** know that any gene present in the bacteria would be intact, stable and integrated in the genome because that would be their condition prior to the performance of the claimed methods. Genes can exist extrachromosomally (especially in bacteria) Therefore, one of the skill in the art would not know to determine whether a given viral and/or eukaryotic genes is an intact gene picked up rather than random fragment thereof. Additionally, the cell line the specification uses is a retrovirally-infected cell line. However, by convention, retroviral genes have been found to be ubiquitous in many different types of organisms, such that virtually any cell culture would reasonably be expected to have at least pieces of DNA from these viruses. Regarding the genes or fragments that are to be present in the bacteria, it is unclear whether such pieces are to be stably incorporated into the genome and whether proteins will be expressed.

In view of the lack of guidance provided by the disclosure, the limited number of working examples, the state of the art, the breadth of the claims, and the unpredictably nature of the invention, it would take an undue amount of experimentation to practice the claimed invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The rejection of claims 1 and 15 under 35 U.S.C. 112, second paragraph, as being rendered vague and indefinite by the use of the language “under low oxygen conditions...” is maintained for reasons of record. Contrary to Applicant’s assertion, said term is not defined in the specification. The passage cited by Applicant states “suitable anaerobic conditions **include** an atmosphere of 0-2 v/v% oxygen”. Since said statement merely identifies one of a multitude of possible concentrations, it is still impossible to determine the metes and bounds of the claimed invention.

The rejection of claims 2, 3, and 15 under 35 U.S.C. 112, second paragraph, as being vague and indefinite and confusing is maintained for reasons of record. Applicant argues that said the use of the term “comprising” removes any confusion. The rejected claims recite, “subjecting the cells to an aerobic culturing step”, yet they depend (in the case of claims 2 and 3) upon claims that require culturing under low oxygen conditions. As Applicant has pointed out, the two “steps” are delineated by the term “comprising”, however since no active steps are defined to separate the two steps they remain contradictory and confusing. It should also be noted that Applicant acknowledges that the aforementioned rejection was warranted which is in itself contradictory to his stated traversal.

### ***New Grounds of Rejection***

#### ***Claim Objections***

Claims 26 and 28 are objected to because of the following informalities: said claims mix the singular and plural terms. Said claims recite the term “a bacteria”. The article “a” is singular while the noun “bacteria” is the plural form of “bacterium”. Appropriate correction is required.

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*35 USC § 112*

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 24-29 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 24 and 25 recite the limitation that the claimed cell is not a transgenic cell. This limitation is not supported by the specification.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-29 are rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant(s) regard as their invention. Evidence that claims 1-29 fail(s) to correspond in scope with that which applicant(s) regard as the invention can be found in Paper No. 7 and 8 filed 6-24-2000. In that paper, applicant has stated "any eukaryotic genes present in bacteria produced by the claimed methods would be intact, stable and integrated in the genome, because that would be their condition prior to the performance of the claimed methods", and this statement indicates that the invention is different from what is defined in the claim(s) because said statement indicates that the genome of the "produced" bacteria is eukaryotic in nature

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suggesting that the claimed method induces a “de-evolution” of the eukaryotic cell. The instant claims are drawn to methods of producing a bacterium that contains a single eukaryotic gene not a bacterium that has the phenotype of a prokaryote and the genotype of a eukaryote.

Claims 24-29 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 24 and 25 are rendered vague and indefinite by the use of the term “derived”. It is unclear what is meant by said term. What steps are required for this “derivation”? What are the starting materials? As written, it is impossible to determine the metes and bounds of the claimed invention.

Claims 24 and 25 are rendered vague and indefinite by the use of the term “evolved”. It is unclear what is meant by said term. All genes in a given eukaryotic genome have “evolved” from an ancestral genome since evolution is an inherent trait of all genomes.

Claims 24 and 25 are rendered vague and indefinite by the use of the term “pleiomorphic cell”. It is unclear what is meant by said term. It is unclear how the cell of the instant claim differs from any other cell since all cells are pleiomorphic by nature. As written, it is impossible to determine the metes and bounds of the claimed invention.

Claims 27 and 29 are rendered vague and indefinite by the use of the phrase “morphology that is neither prokaryotic nor eukaryotic”. It is unclear what is meant by said phrase since “eukaryotic” and “prokaryotic” are taxonomical classifications and not morphology types.



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Further, if eukaryotic and prokaryotic morphologies are excluded, it is not clear what morphology is included within the claimed limitations.

***Conclusion***

No claim is allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert A Zeman whose telephone number is (703) 308-7991. The examiner can normally be reached on M-Th 7:30 am - 5:00 pm and Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, Donna Wortman, Primary Examiner, can be reached on (703) 308-1032. The fax phone numbers for the

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organization where this application or proceeding is assigned are (703) 308-4242 for regular communications and (703) 308-4242 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.

  
DONNA WORTMAN  
PRIMARY EXAMINER

Robert A. Zeman  
September 19, 2002